

2018

Product Catalogue

Section 2: Sleeper Handling



Section 2: Sleeper Handling

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PRODUCTS FOR ROAD HAULAGE

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This document is one of a series of 10 catalogue sections which together give specifications for all the products in our range.

Other sections are available on request.

- Section 1: Rail Handling**
- Section 2: Sleeper Handling**
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- Section 10: Adapter Heads**

2.1 CSH09 SLEEPER HANDLER



The CSH09 Sleeper Handler is primarily designed as an attachment for lorry self-loading cranes.

The device is adjustable to cope with a wide range of sleeper widths, depths and lengths. Wear pads are fitted to reduce damage from exposed reinforcing rods common to continental sleepers.

Adjustment is simple and damage to the sleepers is prevented by the fitment of rubber protectors to the contact areas.

The device may be supplied fitted with a hydraulic rotator or a simple swivel hook attachment point.



FEATURES

- Strong and Reliable
- Check valves on hydraulic cylinders
- Heavy Duty slide ways
- All Steel Welded Construction
- High Resistance to Dynamic Loads
- High Resistance to Abuse
- Proven in Use Since 2009
- 2,000 kg WLL
- 4,000 kg Proof Load
- Full Factory Parts Backup
- CE Marked

A VERSATILE SLEEPER LOADING GRAB FOR ROAD HAULAGE APPLICATIONS

SPECIFICATIONS

| | |
|---------------------------|-----------|
| Weight (4 sleeper model) | 525 kg |
| WLL (Safe Working Load) | 2,000 kg |
| Proof Load (Factory test) | 4,000 kg |
| Mechanism | Hydraulic |
| O/A Height | 960 mm |
| O/A Width | 1515mm |
| O/A Length (min) | 2040 mm |

| | |
|-----------------------------|---------|
| Max. Hyd. Pressure (grab) | 290 Bar |
| Min. Hyd. Pressure (grab) | 90 Bar |
| Max. Hyd. Pressure (rotate) | 160 Bar |

| | |
|-------------|--------------|
| Body Colour | 08E51 Yellow |
| Cylinders | Signal Red |
| Handles | White |

DOCUMENTATION

Operator's Manual
Parts Manual
Maintenance Plan
LOLER Test Certificate

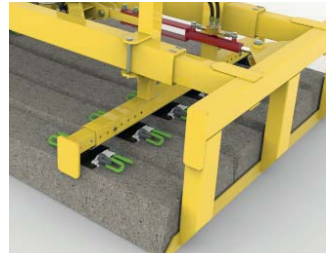


BENEFITS

Check valves on cylinders protect against hose failure

All known wear points fitted with replaceable wear parts

Designed for long life and hard work

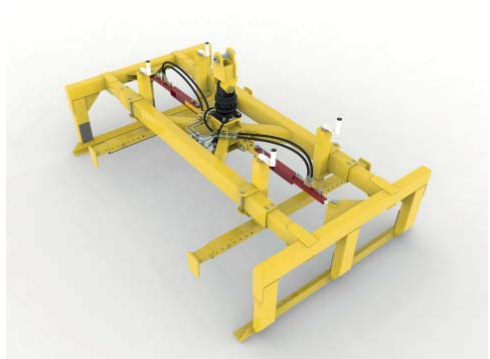


Specifications given may be subject to change due to our policy of continuous improvement

OPTIONS AND ORDERING INFORMATION

The CSH09 Sleeper Handler is available in four and six-sleeper models.

The device may be specified with our full range of adapter heads for excavator or truck crane mounting.



Example: CSH09-06-06 Six-Sleeper Handler with rotator and truck mounted crane adapter.

PRODUCT ACCEPTANCE

This product is primarily specified for use with lorry mounted cranes in the road haulage of sleepers

As such no application has been made for Product Acceptance however Thomson Engineering will be pleased to make an application if required

MODEL NUMBERS FOR ORDERING

When ordering this product please use the ordering code below to specify the correct options

CSH09-□□-□□

| Handler Capacity | Code |
|----------------------|------|
| <i>Four Sleepers</i> | 04 |
| <i>Six Sleepers</i> | 06 |

| Adapter Type | Code |
|--------------------------------------|------|
| <i>Grab with flange only</i> | 00 |
| <i>Fixed head for swivel hook</i> | 01 |
| <i>Swivel head for fixed hook</i> | 02 |
| <i>Rotator + 1 pin head</i> | 03 |
| <i>Rotator + 2 pin head</i> | 04 |
| <i>Archimedes / QC adapter head</i> | 05 |
| <i>Rotator + truck crane adapter</i> | 06 |
| <i>Special Adapter</i> | 07 |

NOTE

When ordering adapter heads we will need to know the dimensions of your host machine.

Please see Section 10 for details of the dimensions we require for each type of adapter head.

See Section 10 for adapter types and details

2.2 SM12 SLEEPER MANIPULATOR



The Thomson Sleeper Manipulator is designed for the precision handling and placement of steel, concrete and timber sleepers.

Interchangeable jaw pads are supplied: urethane lined for concrete, patterned for timber and with base bar for steel sleepers.

Jaws open to 400mm and close to 200mm to accommodate all sleeper types and the 500 kg Safe Working Load allows this grab to handle even the longest bearers.

Pressure control, fitted as standard, prevents overloading of the grab mechanism.



FEATURES

- Rotating or interchangeable jaws for steel, concrete and timber sleepers
- Urethane pads for concrete sleepers eliminate damage
- Hydraulic rotator
- Two pin mounting to host machine
- Heavy duty construction
- Twin jaw cylinders with check valves
- 500 kg WLL
- 1,000 kg Proof Load
- Full Factory Parts Backup
- CE Marked

AN IDEAL SOLUTION FOR PRECISION SLEEPER HANDLING AND FOR SLEEPER CHANGING.

SPECIFICATIONS

| | |
|---------------------------|-------------|
| Weight | 635 kg |
| WLL (Safe Working Load) | 500 kg |
| Proof Load (Factory test) | 1,000 kg |
| Mechanism | Hydraulic |
| Jaw Range | 200 - 400mm |
| O/A Height | 1075 mm |
| O/A Width | 700 mm |
| O/A Length | 825 mm |

| | |
|-----------------------|--------------|
| Max. Hyd. Pressure | 210 Bar |
| Min. Hyd. Pressure | 90 Bar |
| Grip Force (@200 Bar) | 74,600 N |
| Body Colour | 08E51 Yellow |
| Cylinder Colour | Red |

DOCUMENTATION

Operator's Manual
Parts Manual
Maintenance Plan
LOLER Test Certificate



BENEFITS

Narrow profile for ease of access to clips / chairs

Fully enclosed mechanism means reduced damage

Hydraulic rotation and 2 pin mounting mean precise sleeper positioning and manipulation



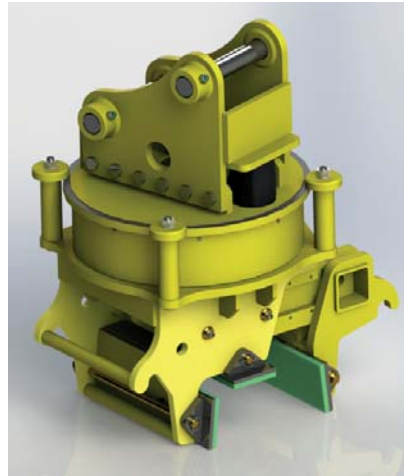
Specifications given may be subject to change due to our policy of continuous improvement

OPTIONS AND ORDERING INFORMATION

The SM12 Sleeper Manipulator is supplied with a two pin head for fitting to an excavator.

When ordering please specify the adapter head dimensions to suit your host machine.

A transport / storage stillage is available for this product.



Example: SM12-01 Sleeper Manipulator without stillage.

PRODUCT ACCEPTANCE

This product has been developed primarily for overseas markets and has not to date been presented for Network Rail Product Approval

MODEL NUMBERS FOR ORDERING

When ordering this product please use the ordering code below to specify the correct options

SM12-□□

| Stillage | Code |
|--|------|
| <i>No Stillage</i> | 01 |
| <i>With Transport / Storage Stillage</i> | 02 |

NOTE

When ordering we will need to know the dimensions of your host machine in order for us to provide the correct adapter head

Please see Section 10 for details of the dimensions we require for Type 04 adapter head.

2.4 SSB16 SLEEPER SPREADER BEAMS



Thomson Engineering manufacture a wide range of sleeper spreader beams.

Designs are available for handling 4, 7, 8, 14 or 28 sleepers according to application; either self powered and radio controlled or linked to the crane's hydraulic system.

All our models feature light, rigid fabricated subframes, strong lifting legs and soft contact pads to eliminate damage to the sleepers.

All are designed to gather sleepers together prior to lifting for the most accurate results.

Our Super-Light 7-Sleeper model weighs just 950kg.

SPECIFICATIONS

| | |
|---------------------------|--|
| Application | Concrete Sleepers |
| Capacity | 4,7,8,14 or 28 sleepers |
| Power source | Crane or power pack |
| Control | Crane Auxiliary Pendant Radio Remote |
| WLL (Safe Working Load) | 350 kg/leg |
| Proof Load (Factory Test) | 700 kg/leg |



| | |
|--------------------|--------------|
| Max. Hyd. Pressure | 210 Bar |
| Min. Hyd. Pressure | 90 Bar |
| Body Colour | 08E51 Yellow |
| Moving Parts | Signal Red |

FEATURES

- Strong and Robust
- Check valves on grip cylinders
- Precision Spacing
- Variety of models including Super Light
- All Steel Welded Construction
- High Resistance to Dynamic Loads
- Handles sleepers up to 350 kg
- Twin jib crane model available
- Optional sleeper gathering feature
- Full Factory Parts Backup
- CE Marked

A WIDE VARIETY OF OPTIONS AND EXCELLENT LOAD TO WEIGHT RATIO.

DOCUMENTATION

- Operator's Manual
- Parts Manual
- Maintenance Plan
- LOLER Test Certificate



BENEFITS

- Rapid and safe sleeper laying
- Reduces or eliminates working at height
- Accurate sleeper spacing



Specifications given may be subject to change due to our policy of continuous improvement

OPTIONS AND ORDERING INFORMATION

The SSB16 Sleeper Spreader Beam is a unique modular design which can be made to carry from 4 to 28 sleepers.

Smaller models (4 and 7 sleeper) are also available with an all aluminium alloy chassis making them the lightest in their class.

Special types include models with built in power packs and radio control for use with gantry cranes.



Example: SSB16-03-04 Seven Sleeper Spreader Beam with alloy chassis, rotator and two-pin adapter head

PRODUCT ACCEPTANCE

This product has full Network Rail Product Acceptance under Certificate number PA05/06744

MODEL NUMBERS FOR ORDERING

When ordering this product please use the ordering code below to specify the correct options

SSB16-□□-□□

| Type | Code |
|--------------------------------------|------|
| <i>Four Sleepers Alloy Chassis</i> | 01 |
| <i>Four Sleepers Steel Chassis</i> | 02 |
| <i>Seven Sleepers Alloy Chassis</i> | 03 |
| <i>Seven Sleepers Steel Chassis</i> | 04 |
| <i>Eight Sleepers Steel Chassis</i> | 05 |
| <i>Special Type (please specify)</i> | 06 |

| Adapter Type | Code |
|--------------------------------------|------|
| <i>Beam with flange only</i> | 00 |
| <i>Fixed head for swivel hook</i> | 01 |
| <i>Swivel head for fixed hook</i> | 02 |
| <i>Rotator + 1 pin head</i> | 03 |
| <i>Rotator + 2 pin head</i> | 04 |
| <i>Archimedes / QC adapter head</i> | 05 |
| <i>Rotator + truck crane adapter</i> | 06 |
| <i>Special Adapter</i> | 07 |

NOTE

When ordering adapter heads we will need to know the dimensions of your host machine.

Please see Section 10 for details of the dimensions we require for each type of adapter head.

See Section 10 for adapter types and details

2.10 CSG14 CONCRETE SLEEPER PACK GRAB



Thomson Concrete Sleeper Pack Grabs have a unique design which allows them to be quickly and easily adjusted to handle 1, 2, 3, 4 or 5 layers of sleepers.

The unique, hydraulically-adjusted top plate allows the grab to be set for the required number of layers in a matter of moments.

With a 10,000kg Safe Working Load this is an extremely heavy duty unit which can be fitted with standard or heavy duty rotators and adapter heads to suit excavators up to 50 tonnes.

The standard model handles up to 25 sleepers in 5 layers.

SPECIFICATIONS

Typical unit for 25 sleepers:

| | |
|---------------------------|-----------------|
| Tare Weight | 3,600 kg |
| WLL (Safe Working Load) | 10,000 kg |
| Proof Load (Factory Test) | 20,000 kg |
| Mechanism | Fully hydraulic |
| Sleeper Length | 2,500 mm |
| Pack width | 1,500 mm |



FEATURES

- Handles up to 5 layers
- Rubber buffers protect sleepers
- All Steel Welded Construction
- Long design life
- Hydraulic adjustment
- 10,000kg WLL
- Other sizes available
- Single and multiple layers
- Full Factory Parts Backup
- CE Marked

A PURPOSE DESIGNED CONCRETE SLEEPER PACK GRAB FOR USE WITH HEAVY EXCAVATORS

DOCUMENTATION

- Operator's Manual
- Parts Manual
- Maintenance Plan
- LOLER Test Certificate



BENEFITS

- Rapid loading of trains and trucks
- Purpose designed for heavy duty use
- Available for 1 to 5 layers of sleepers



Specifications given may be subject to change due to our policy of continuous improvement

OPTIONS AND ORDERING INFORMATION

The CSG14 Concrete Sleeper Pack Grab is available with our full range of adapter heads.

The device may be specified for one to five layers of sleepers to suit different host machine capacities.



Example: CSG14-05-04 Concrete Sleeper Pack Grab for 25 sleepers with rotator and two-pin adapter head

PRODUCT ACCEPTANCE

This product is primarily specified for use in handling yards and not therefore on Network Rail infrastructure

As such, no Product Acceptance is required for this grab

MODEL NUMBERS FOR ORDERING

When ordering this product please use the ordering code below to specify the correct options

CSG14-□□-□□

| Grab Capacity | Code |
|---------------|------|
| 5 Sleepers | 01 |
| 10 Sleepers | 02 |
| 15 Sleepers | 03 |
| 20 Sleepers | 04 |
| 25 Sleepers | 05 |

| Adapter Type | Code |
|-------------------------------|------|
| Beam with flange only | 00 |
| Fixed head for swivel hook | 01 |
| Swivel head for fixed hook | 02 |
| Rotator + 1 pin head | 03 |
| Rotator + 2 pin head | 04 |
| Archimedes / QC adapter head | 05 |
| Rotator + truck crane adapter | 06 |
| Special Adapter | 07 |

NOTE

When ordering adapter heads we will need to know the dimensions of your host machine.

Please see Section 10 for details of the dimensions we require for each type of adapter head.

See Section 10 for adapter types and details

2.11 PG14 PLATE GRAB



The Thomson Plate Grab is designed for handling short lengths of rail, packs of steel sleepers and single concrete sleepers.

The only plate grab to come with easily removable soft gripper pads which prevent damage to concrete sleepers.

Jaws open wide for stability in transport yet close to touch for gripping small items.

Available with jaw depths of 400mm, 600mm or 800mm and a variety of rotators and adapters to suit all machines and cranes.



FEATURES

- Steel jaw lip
- Urethane pads for concrete
- Hydraulic Rotator
- Two pin or one pin adapter heads
- Heavy Duty Welded Construction
- Check valves on cylinders
- 1,250 kg WLL
- Three jaw heights available
- Full Factory Parts Backup
- CE Marked

A HEAVY DUTY PLATE GRAB FOR SLEEPER AND GENERAL PURPOSE HANDLING

SPECIFICATIONS

Typical unit for 25 sleepers:

| | |
|---------------------------|-------------------|
| Tare Weight (typical) | 850 kg |
| WLL (Safe Working Load) | 1,250 kg |
| Proof Load (Factory Test) | 2,500 kg |
| Mechanism | Fully hydraulic |
| O/A Width | 800 mm |
| Jaw Max Opening | 950 mm |
| Adapter Mount | Std 6 bolt flange |

| | |
|-------------------------|---------|
| Max. Hydraulic Pressure | 210 Bar |
| Min. Hydraulic Pressure | 90 Bar |

| | |
|----------------|---------------|
| Body Colour | 08E51 Yellow |
| Hyd. Cylinders | Signal Red |
| Soft Pad | 800mm x 140mm |

DOCUMENTATION

Operator's Manual
Parts Manual
Maintenance Plan
LOLER Certificate



BENEFITS

- Range of sizes available
- High Grip Force
- Quick fit pads for concrete sleepers
- General purpose heavy duty handler



Specifications given may be subject to change due to our policy of continuous improvement

OPTIONS AND ORDERING INFORMATION

The PG14 Plate Grab is available with three different jaw depths to suit different applications.

The device may be specified with our full range of adapter heads for excavator or truck crane mounting.



Example: PG14-03-05 Plate Grab with 800mm deep jaws and Archimedes square drive adapter head

PRODUCT ACCEPTANCE

This product is primarily specified for use in handling yards

As such no application has been made for Product Acceptance however Thomson Engineering will be pleased to make an application if required

MODEL NUMBERS FOR ORDERING

When ordering this product please use the ordering code below to specify the correct options

PG14-□□-□□

| Grab Depth | Code |
|------------|------|
| 400mm | 01 |
| 600mm | 02 |
| 800mm | 03 |

| Adapter Type | Code |
|-------------------------------|------|
| Beam with flange only | 00 |
| Fixed head for swivel hook | 01 |
| Swivel head for fixed hook | 02 |
| Rotator + 1 pin head | 03 |
| Rotator + 2 pin head | 04 |
| Archimedes / QC adapter head | 05 |
| Rotator + truck crane adapter | 06 |
| Special Adapter | 07 |

NOTE

When ordering adapter heads we will need to know the dimensions of your host machine.

Please see Section 10 for details of the dimensions we require for each type of adapter head.

See Section 10 for adapter types and details

2.12 TCSG16 SLEEPER GRAB



The Thomson TCSG16 Sleeper Grab is designed for use in the haulage and delivery of concrete, steel and timber sleepers.

Specifically designed for use with truck cranes.

The delicate surfaces of concrete sleepers are protected by the soft grip pads.

A pilot operated check valve secures the cylinder against hose failure for extra safety.

Computer Aided Engineering has been used extensively to minimise the weight of this product without compromising strength or performance.



FEATURES

- Steel jaw lip
- Urethane pads to protect sleepers
- Hydraulic Rotator
- Full range of adapter heads
- Heavy Duty Welded Construction
- Check valve on cylinder
- 1,250 kg WLL
- Specifically designed for truck cranes
- Lift concrete, timber or steel sleepers
- Full Factory Parts Backup
- CE Marked

A LIGHT BUT HEAVY DUTY GRAB FOR SLEEPER PURPOSE HANDLING

SPECIFICATIONS

Grab with rotator but no adapter head:

| | |
|---------------------------|-----------------|
| Tare Weight | 130 kg |
| WLL (Safe Working Load) | 1,250 kg |
| Proof Load (Factory Test) | 2,500 kg |
| Mechanism | Fully hydraulic |
| O/A Width | 590 mm |
| Jaw Length | 350 mm |
| Jaw Max Opening | 345 mm |

| | |
|-------------------------|---------|
| Max. Hydraulic Pressure | 210 Bar |
| Min. Hydraulic Pressure | 90 Bar |

| | |
|--------------|--------------|
| Body Colour | 08E51 Yellow |
| Moving Parts | Signal Red |
| Soft Pad | 350mm x 80mm |

DOCUMENTATION

Operator's & Maintenance Manual
LOLER Certificate



BENEFITS

- Light weight
- Versatile
- High Grip Force
- Soft Grip pads for concrete sleepers
- Heavy duty design



Specifications given may be subject to change due to our policy of continuous improvement

OPTIONS AND ORDERING INFORMATION

The TCSG16 Sleeper Grab is available as a grab only, as a grab with rotator or as grab, rotator and adapter head.

The device may be specified with our full range of adapter heads for excavator or truck crane mounting.



Example: TCSG16-02-00 Sleeper Grab with rotator but no adapter head

PRODUCT ACCEPTANCE

This product is primarily specified for use in road haulage

As such no application has been made for Product Acceptance however Thomson Engineering will be pleased to make an application if required

MODEL NUMBERS FOR ORDERING

When ordering this product please use the ordering code below to specify the correct options

TCSG16-□□-□□

| Grab Configuration | Code |
|--|------|
| <i>Grab only</i> | 01 |
| <i>Grab with Rotator only</i> | 02 |
| <i>Grab with rotator & adapter</i> | 03 |

| Adapter Type | Code |
|--------------------------------------|------|
| <i>No Adapter head</i> | 00 |
| <i>Fixed head for swivel hook*</i> | 01 |
| <i>Swivel head for fixed hook*</i> | 02 |
| <i>1 pin rotator head</i> | 03 |
| <i>2 pin rotator head</i> | 04 |
| <i>Archimedes / QC adapter head*</i> | 05 |
| <i>Rotator + truck crane adapter</i> | 06 |
| <i>Special Adapter</i> | 07 |

NOTE

When ordering adapter heads we will need to know the dimensions of your host machine.

Please see Section 10 for details of the dimensions we require for each type of adapter head.

** TCSG16-01 only
See Section 10 for adapter types and details*

Please enquire for further details to:

Thomson Engineering Design Ltd

Valley Road
Cinderford
Gloucestershire UK
GL14 2NZ

Tel: +44 1594 82 66 11 Fax: +44 1594 82 55 60

Email: sales@thomsondesignuk.com

Web: www.thomsondesignuk.com

For technical enquiries please contact: technical@thomsondesignuk.com



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